

Salmonella Outbreak Linked to Flour



Food Safety Alert

Posted June 7, 2023

This outbreak is over. Learn what you can do to prevent getting sick from flour.

Fast Facts

- Illnesses: 14
- Hospitalizations: 3
- Deaths: 0
- [States](#): 13
- Recall: Yes
- Investigation status: Closed

Recalled Food

On April 28, 2023, General Mills voluntarily issued a nationwide [recall](#) of 2-pound, 5-pound, and 10-pound bags of Gold Medal Bleached and Unbleached All-Purpose Flour with “Better if Used By” dates of March 27, 2024, and March 28, 2024. The recalled products included the following Package Universal Product Codes (UPC):

The recalled products include the following Package Universal Product Codes (UPC)

Recalled Product	
Gold Medal Unbleached All-Purpose Flour (5 lb bag)	0
Gold Medal Unbleached All-Purpose Flour (10 lb bag)	0
Gold Medal Bleached All-Purpose Flour (2 lb bag)	0
Gold Medal Bleached All-Purpose Flour (5 lb bag)	0

What You Should Do

- **Do not use any recalled flour. Throw it away or return it to where you bought it.**
 - If you stored recalled flour in another container, throw the flour away and wash the container thoroughly with warm water and soap before using it again.
- **Bake**

- Always bake or cook food made with any brand of raw flour, like cookie dough or cake batter, before eating it. Do not bake or cook recalled flour.
- Follow the recipe or package instructions for cooking or baking flour that hasn't been recalled. Use the temperature and cooking time given in the recipe or instructions.
- Do not let children play with or eat raw dough, including dough for crafts.
- **Clean**
 - Wash any bowls, utensils, and surfaces that touched raw flour with warm water and soap.
 - Wash your hands with warm water and soap before and after using raw flour.
- **Separate**
 - Keep raw flour, dough, and batter separate from foods that won't be cooked.
- **Call a healthcare provider** right away if you or your child have any of these severe *Salmonella* symptoms:
 - Diarrhea and a fever higher than 102°F
 - Diarrhea for more than 3 days that is not improving
 - Bloody diarrhea
 - So much vomiting that you cannot keep liquids down
 - Signs of dehydration, such as:
 - Not peeing much
 - Dry mouth and throat
 - Feeling dizzy when standing up

What Businesses Should Do

- **Do not sell recalled flour.**
- **Wash and sanitize items and surfaces** that may have come in contact with recalled flour.

Symptoms of *Salmonella*

- Most people infected with *Salmonella* experience diarrhea, fever, and stomach cramps.
 - Symptoms usually start 6 hours to 6 days after swallowing the bacteria.

- Most people recover without treatment after 4 to 7 days.
- Some people—especially children younger than 5 years, adults 65 years and older, and people with weakened immune systems—may experience more severe illnesses that require medical treatment or hospitalization.

Investigation Details

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CDC, public health and regulatory officials in several states, and the U.S. Food and Drug Administration (FDA) investigated a multistate outbreak of *Salmonella* Infantis infections.

Epidemiologic, laboratory, and traceback data showed that Gold Medal brand flour contaminated with *Salmonella* made people sick.

Epidemiologic Data

As of June 7, 2023, 14 people infected with the outbreak strain of *Salmonella* Infantis were reported from 13 states. Illnesses started on dates ranging from December 6, 2022, to May 2, 2023.

Public health officials collected many different types of information from sick people, including their age, race, ethnicity, other demographics, and the foods they ate in the week before they got sick. This information provided clues to help investigators identify the source of the outbreak.

Sick people ranged in age from 12 to 81 years, with a median age of 64, and 93% were female. Of 11 people with race or ethnicity information available, 10 were White, 1 was Asian, and no one reported Hispanic ethnicity. Of 13 people with information available, 3 were hospitalized. No deaths were reported.

The true number of sick people in this outbreak was likely much higher than the number reported, and the outbreak may not have been limited to the

states with known illnesses. This is because many people recover without medical care and are not tested for *Salmonella*.

State and local public health officials interviewed people about the foods they ate in the week before they got sick. Of the 8 people interviewed, 7 (88%) reported eating raw dough or batter. Of 6 sick people with brand information, all 6 (100%) reported buying Gold Medal brand flour. No other brands of flour were reported by ill people.

Traceback and Laboratory Data

FDA conducted a traceback investigation and identified a single production facility for the flour consumed by sick people. FDA initiated an inspection at the General Mills Kansas City, Missouri, facility and collected samples from flour. The outbreak strain was identified in one of the samples.

[Whole genome sequencing analysis](#) of bacteria from 14 people's samples and 1 flour sample did not predict resistance to any antibiotics.

Standard [antibiotic susceptibility testing](#) of one person's sample by CDC's [National Antimicrobial Resistance Monitoring System \(NARMS\)](#) laboratory also showed no resistance.

Public Health Actions

On April 28, 2023, General Mills voluntarily [recalled](#) 2-pound, 5-pound, and 10-pound bags of Gold Medal Bleached and Unbleached All-Purpose Flour with "Better if Used By" dates of March 27, 2024, and March 28, 2024. Two Product UPCs of Gold Medal Unbleached All-Purpose Flour in 5- and 10-pounds bags were affected, and two Product UPCs of Gold Medal Bleached All-Purpose Flour in 2- and 5-pound bags were affected. Although this outbreak investigation has ended, CDC advises you to throw away or return any bags of recalled flour and to wash any containers used to store recalled flour with warm water and soap.